OIPE

DATE: 05/24/2001 TIME: 13:17:23 RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/852,472

Input Set : A:\97-28C1.SEQ.txt

```
ENTERED
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4 <110> APPLICANT: Sheppard, Paul O.
     8 <120> TITLE OF INVENTION: Mammalian Neuro-Growth Factor Like
    11 <130> FILE REFERENCE: 97-28C1
             Protein
C--> 13 <140> CURRENT APPLICATION NUMBER: US/09/852,472
C--> 13 <141> CURRENT FILING DATE: 2001-05-10
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     14 <151> PRIOR FILING DATE: 1998-06-18
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      26 <213> ORGANISM: Homo sapiens
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      30 <222> LOCATION: (69)...(887)
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                   Met Arg Gly Ser Gln Glu Val Leu Leu Met Trp Leu Leu Val
       38 ttg gca gtg ggc ggc aca gag cac gcc tac cgg ccc ggc cgt agg gtg
                                                                             158
       39 Leu Ala Val Gly Gly Thr Glu His Ala Tyr Arg Pro Gly Arg Arg Val
        44 tgt gct gtc cgg gct cac ggg gat cct gtc tcc gag tcg ttc gtg cag
                                                                             206
        45 Cys Ala Val Arg Ala His Gly Asp Pro Val Ser Glu Ser Phe Val Gln
        48 cgt gtg tac cag ccc ttc ctc acc acc tgc gac ggg cac cgg gcc tgc
                                                                              254
        49 Arg Val Tyr Gln Pro Phe Leu Thr Thr Cys Asp Gly His Arg Ala Cys
         52 age ace tac ega ace ate tat agg ace gee tac ege ege age eet ggg
                                                                              302
         53 Ser Thr Tyr Arg Thr Ile Tyr Arg Thr Ala Tyr Arg Arg Ser Pro Gly
         56 etg gee eet gee agg eet ege tae geg tge tge eec gge tgg aag agg
                                                                               350
         57 Leu Ala Pro Ala Arg Pro Arg Tyr Ala Cys Cys Pro Gly Trp Lys Arg
         60 acc agc ggg ctt cct ggg gcc tgt gga gca gca ata tgc cag ccg cca
                                                                               398
         61 Thr Ser Gly Leu Pro Gly Ala Cys Gly Ala Ala Ile Cys Gln Pro Pro
          64 tgc cgg aac gga ggg agc tgt gtc cag cct ggc cgc tgc cgc tcc
                                                                               446
          65 Cys Arg Asn Gly Gly Ser Cys Val Gln Pro Gly Arg Cys Arg Cys Pro
          68 gca gga tgg cgg ggt gac act tgc cag tca gat gtg gat gaa tgc agt
                                                                                494
```



DATE: 05/24/2001

TIME: 13:17:23



RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/852,472

Input Set : A:\97-28C1.SEQ.txt

69 Al	a Gly	Trp	Arg	Gly	Asp	Thr	Cys	Glr	n S€	er.	Asp	Val	Asp	Glu 140	Cys	Ser	
70	t agg a Arg	~	130	aac	+ at	CCC	cad	. ca.	o c to	ac	atc	aac	acc Thr	gcc	ggc	agt	542
74		145		+~+	+ aa	a a a	150	r cai	• - ad	ac.	ct.a	tct	gca	gac	ggt	aca	590
77 Ty	r Trp	Cys	Gln	Cys	Trp	165	GTÄ	7 нт.	5 5	er	ьец	170	AIU	1100	027		638
81 L∈	c tgt	gtg Val	ccc Pro	aag Lys	gga Gly 180	Gly	Pro	e cc Pr	c a o A	gg rg	Val	Ala	Pro	Asn	Pro	Thr 190	
82 17 86 gg 87 GJ	s ga gtg y Val	gac Asp	agt Ser	gca Ala	2+4	aag Lys	gaa Glu	a ga ı Gl	u v	dΙ	cag Gln	agg Arg	ctg Leu	cag Gln	tcc Ser 205	agg Arg	686
88	g gac al Asp			195	~ ~ ~	220	cto	r ca	a c	tα	at.a	cta	qcc	cca Pro	ctg Leu	cac	734
92	gc cto er Lev		210	~~~	~~~	cta	. ua	ZI r ca	t a	aa	ctc	cco	gac	CCC	ggc	agc	782
96		225		+ ~ ~	++0	020	231	U act	c a	uc	cac	ato	gac	tcc	ctg	agc	830
99 L	eu Leu 24	ı Val 10	His	Ser	Phe	GIN 24	. G11 .5	au c	u G	cto	a aa	25 ra to	io io coto	c to	c to	jc aag	878
100 240 243 878 102 gag cag att tcc ttc ctg gag gag cag ctg ggg tcc tgc tcc tgc aag 878 103 Glu Gln Ile Ser Phe Leu Glu Glu Gln Leu Gly Ser Cys Ser Cys Lys 260 265 270												007					
106	aaa ga	~															927
109	cgccct	gcag	g ccc													ctcggg caġgag	
111	tcccc	agaco	c ctc	gcat	ggg	atg	ggct	ggg	arc	nda	aato	ia a	ccct	caget	t gag	gggaag	gt 1167
113 114	acgag ggggc	ctcc ctca	c tga g tga														gt 1227 aa 1287 1297
115 117	aaaaa <210>	aaaaa SEQ	a ID N	10: 2													
119	<211> <212>	TYP	E: Pi	RТ			222										
	<213> <400>	ana	T T T T T T T T T T T T T T T T T T T	T. 0					T	Ma	\+ π	rn I	en I.	en V	al L	eu Ala	
	-				Ľ,					T ()				_	eu Ala 5 vs Ala	
127			2	Λ					Z :)					_	~	ys Ala	
129		1	_					411					_	_		rg Val	
	_	in P	ro P			L-	. '						, 0			er Thr	
132 133	Tyr F	60 Arg T	hr I	le T	yr A	rg T	hr i	Ala	Туг	: A:	rg A	rg S	Ser F	ro G	Sly I	eu Ala	ì





DATE: 05/24/2001 RAW SEQUENCE LISTING TIME: 13:17:23 PATENT APPLICATION: US/09/852,472

Input Set : A:\97-28C1.SEQ.txt

	- F	70					75	mrn	LVS	Ara	Thr	80 Ser
134 65 135 Pro Ala Arg Pr	o Arg	Tyr	Ala	Cys	Cys	90	СТУ	111	БуС	9	95	70
136	y Ala	Cys	Gly	Ala	Ala	Ile	Cys	Gln	Pro	Pro 110	Cys	Arg
138 Asn Glv Glv Se	o r Cys	Val	Gln	Pro	Gly	Arg	Cys	Arg	Cys	Pro	Ala	GIY
140 115 141 Trp Arg Gly As	p Thr	Cys	Gln	120 Ser	Asp	Val	Asp	Glu	Cys	Ser	Ala	Arg
141 11p Alg 327 142 130 143 Arg Gly Gly Cy	s Pro	Gln	135 Arg	Cys	Val	Asn	Thr	Ala	Gly	Ser	Tyr	Trp 160
143 Arg Gly Gly C. 144 145 145 Cys Gln Cys T.	Clu	150	His	Ser	Leu	Ser	155 Ala	Asp	Gly	Thr	Leu	Cys
145 Cys Gln Cys T 146 147 Val Pro Lys G	165) -	D	7. ~ 0	. Val	170 Ala) a Pro	Asn	Pro	Thr	Gly	Val
147 Val Pro Lys G	ly Gl <u>)</u> 80	7 Pro	Pro	ALG	185)	r Tei	Glr	n Ser	190 Arc	ı , Val	Asp
148 149 Asp Ser Ala M	et Lys	s Glu	Glu	200) GTI	ı Ar	, <u>1</u> 13-	Dro	205	i His	s Sei	Leu
150 195 151 Leu Leu Glu G	lu Ly:	s Leu	Glr. 215	ı Lei 5	ı Val	L Le	u Alo	220) - Cl	, 50	r T.ei	ı Leu
152 210 153 Ala Ser Gln A	la Le	u Glu 230	ı His	Gl;	y Lei	u Pr	o Asp 23	o Pro 5	o Gri	y 3e.	. Cl	240
154 225 155 Val His Ser F	he Gl	n Glr	ı Lei	a Gl	y Ar	g Il 25	e As 0	p Se	r Lei	u Se	25	5
156 157 Ile Ser Phe	24 eu Gl	u Glu	Gl:	n Le	u Gl 26	y Se	r Cy	s Se	r Cy	s Ly 27	s Ly O	s Asp
158 159 Ser	260				20	J						
161 <210> SEQ ID	NO: 3	3										
162 <211> LENGTH 163 <212> TYPE:	PRT	omo 9	anie	ns								
164 <213> ORGANI 166 <400> SEQUEN	SM: HO	JIIIO 3	apro	o	7\ 1	ca D.	ra Vá	al C	vs Aĺ	La Va	al Ai	rg Ala
166 <400> SEQUEN 167 Thr Glu His	Ala T	yr Ar 5	g Pr	:0 G.	ry Ai	1	0	1 m 7\:	ra V	ייד וב	1! vr G:	o ln Pro
168 1 169 His Gly Asp	Pro V	al S∈	er Gl	lu S	er Pl 2	he V 5	al G.	LII A	ry vo	31	0	ra Thr
170 171 Phe Leu Thr	Thr C	ys As	sp G.	ly H 4	is A	rg A	la C	ys S	er T 4	nr 1 5	λι Ψ	1 y 1112
172 The Tyr Arg	Thr A	la T	yr A	rg A	rg S	er P	ro G	ly L	eu A	la P	ro A	Ia MIG
174 50	Ala C	Cys C	ys P	ro G	ly T	rp I	ys A	rg T	hr S	er G	тАт	80
173 E10 A1g =7 176 65 177 Gly Ala Cys	Glv A	7 Ala A	0 la I	le C	ys G	3ln E	Pro E	ro (Cys A	rg A	sn G	ly Gly
177 Gly Ala Cys 178 179 Ser Cys Val	(12)	35 Bro G	:1 v 2	Ara (Cys <i>I</i>	و Arg (90 Cys I	ero A	Ala G	Sly J	rp F	Arg Gly
179 Ser Cys Val 180 181 Asp Thr Cys	100	2 . 7	·	721 :	- - - - -	105 31u (Cys :	Ser J	Ala <i>P</i>	arg <i>l</i>	Arg (Gly Gly
181 Asp Thr Cys	Gln	ser P	rsb /	1 a ± 4	120	7.] ~	Glv	Ser	Tvr '	125 Irp (Cys '	Gln Cys
182 115 183 Cys Pro Glr 184 130	Arg	Cys /	/al /	Asn 135	rnr .	HIG	OTY .		140	*	-	





DATE: 05/24/2001 RAW SEQUENCE LISTING TIME: 13:17:23 PATENT APPLICATION: US/09/852,472

Input Set : A:\97-28C1.SEQ.txt

Output Set: C:\CRF3\03242001\0324											
185 Trp Glu Gly His Ser Leu Ser Ala Asp Gly Thr Leu Cys Val Pro Lys											
186 145 187 Gly Gly Pro Pro Arg Val Ala Pro Asn Pro Thr Gly Val Asp Ser Ala 187 Gly Gly Pro Pro Arg Val Ala Pro Asn Pro Thr Gly Val Asp Ser Ala											
188 189 Met Lys Glu Glu Val Gln Arg Leu Gln Ser Arg Val Asp Leu Glu											
190 180 190 Lys Leu Gln Leu Val Leu Ala Pro Leu His Ser Leu Ala Ser Gln											
192 195 195 193 Ala Leu Glu His Gly Leu Pro Asp Pro Gly Ser Leu Leu Val His Ser											
215 220 215 220 215 220 240 230 235 240											
196 225 107 Lev Clu Glu Glu Leu Gly Ser Cys Ser Cys Lys Lys Asp Ser											
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200 <210> SEQ ID NO: 4 201 <211> LENGTH: 284											
202 <212> TYPE: DNA 203 <213> ORGANISM: Homo sapiens	60										
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208 cagtgggcgg cacagaycac togttcgtgc agcgtgtgta ccagccette etcaccacet	240 284										
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240 <212> TYPE: PRT 241 <213> ORGANISM: Homo sapiens											
241 <213> ORGANISM. Home 241 243 <400> SEQUENCE: 8 244 Thr His Arg Gly Leu His Ile Ser Ala Leu Ala Thr Tyr Arg Ala Arg 15											
244 Thr His Arg Gly Led HIS 225 245 1 10											
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RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/852,472

DATE: 05/24/2001 TIME: 13:17:23

Input Set : A:\97-28C1.SEQ.txt

246 247	Gly	Pro	Arg	Gly 20	Leu	Tyr	Ala	Arg	Gly 25	Ala	Arg	Gly	Val	Ala 30	Leu	Cys
250 251	Tyr	Ser	Ala 35		Ala	Val	Ala	Leu 40	Ala	Arg	Gly	Ala	Leu 45	Ala	His	Ile
252 253	Ser	Gly 50	Leu	Tyr	Ala	Ser	Pro 55	Pro	Arg	Val	Ala	Leu 60	Ser	Glu	Arg	Gly
254 255	Leu 65	Ser	Glu	Arg	Pro	His 70		Val	Ala	Leu	Gly 75	Leu	Asn	Ala	Arg	Gly 80
256 257	Val	Ala	Leu	Thr	Tyr 85		Gly	Leu	Asn	Pro 90	Arg	Pro	His	Glu	Leu 95	Glu
258 259	Thr	His	Arg	Thr 100		Arg	Cys	Tyr	Ser 105	Ala	Ser	Pro	Gly	Leu 110	Tyr	His
260 261	Ile	Ser	Ala 115	Arg	Gly	Ala	Leu	Ala 120			Ser	Ser	Glu 125	Arg	Thr	His
262	Arg	Thr 130	Tyr	Arg	Ala	Arg	Gly 135		His	Arg	Ile	Leu 140	Glu	Thr	Tyr	Arg
	Ala 145	Arg	Gly	Thr	His	Arg 150		Leu	Ala	Thr	Tyr 155	Arg	Ala	Arg	Gly	Ala 160
266	Arg	Gly	Ser	Glu	Arg 165		Arg	Gly	Leu	Tyr 170	Leu	Glu	Ala	Leu	Ala 175	Pro
	Arg	Ala	Leu	Ala 180	Ala	Arg	Gly	Pro	Arg 185		Arg	Gly	Thr	Tyr 190	Arg	Ala
	Leu	Ala		Tyr	Ser	Cys	Tyr	Ser 200		Arg	Gly	Leu	Tyr 205	Thr	Arg	Pro
	Leu		195 Ser	Ala	Arg	Gly	Thr 215		Arg	Ser	Glu	Arg 220	Gly	Leu	Tyr	Leu
		210 Pro	Arg	Gly	Leu	Tyr 230		Leu	Ala	Cys	Tyr 235		Gly	Leu	Tyr	Ala 240
276	225 Leu	Ala	Ala	Leu	Ala 245	Ile	Leu	Glu	Cys	Tyr 250		Gly	Leu	Asn	Pro 255	Arg
		Arg	Cys	Tyr 260	Ser	Ala	Arg	Gly	Ala 265	Ser	Asn	Gly	Leu	Tyr 270	Gly	Leu
279 280 281	Tyr	Ser	Glu 275	Arg	Cys	Tyr	Ser	Val 280			Gly	Leu	Asn 285	Pro	Arg	Gly
281 282 283	Leu	Tyr 290	Ala	Arg	Gly	Cys	Tyr 295	Ser	Ala	Arg	Gly	Cys 300	Tyr	Ser	Pro	Arg
284	Ala 305	Leu	Ala	Gly	Leu	Tyr 310	Thr	Arg	Pro	Ala	Arg 315	Gly	Gly	Leu	Tyr	Ala 320
286 287	Ser	Pro	Thr	His	Arg 325	Cys	Tyr	Ser	Gly	Leu 330	Asn	Ser	Glu	Arg	Ala 335	Ser
288	Pro			340	Ala	Ser	Pro	Gly	Leu 345	Cys				350		Ala
292	Leu		355	Arg	Gly			360)				365)		Tyr
294	Ser	370	Arc	g Gly			375)				380)			Ala
296	Ser	. Asn	Thr			390	Lev	ı Ala			395)				Tyr 400
298	Arç	, J Thr	: Arg	g Pro	суѕ	Tyr	Ser	: Gly	, Lei	ı Asr	Cys	туг	Ser	Thr	Arg	Pro





VERIFICATION SUMMARY

PATENT APPLICATION: US/09/852,472

DATE: 05/24/2001 TIME: 13:17:24

Input Set : A:\97-28C1.SEQ.txt

Output Set: C:\CRF3\05242001\I852472.raw

L:13 M:270 C: Current Application Number differs, Replaced Current Application No

L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date